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TRANSMITTAL FORM

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Total Number of Pages in This Submission	

Application Number	10/803,087
Filing Date	March 18, 2004
First Named Inventor	Mitsuru Hasegawa
Art Unit	1792
Examiner Name	R. Zervigon
Attorney Docket Number	PHCF-04015

ENCLOSURES *(Check all that apply)*

- [ ] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment / Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
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- [ ] Proprietary Information
- [ ] Status Letter
- [ ] Other Enclosure(s) (please identify below):

Remarks

No fees are due since they were already paid for first appeal.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	McgGinn Intellectual Property Law Group, PLLC. 8321 Old Courthouse Road, Suite 200, Vienna, Virginia 22182-3817		
Signature	Frederick Cooperrider		
Printed name	Frederick E. Cooperrider, Esq.		
Date	August 1, 2008	Reg. No.	36,769

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NOTICE OF APPEAL FROM THE PRIMARY EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES (Large Entity)

Docket No. PHCF-04015

In Re Application Of: **Mitsuru Hasegawa, et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/803,087	March 18, 2004	R. Zervigon	21254	1792	4164

Invention: **SEMICONDUCTOR FILM FORMATION DEVICE**

COMMISSIONER FOR PATENTS:

Applicant(s) hereby appeal(s) to the Board of Patent Appeals and Interferences from the decision of the Primary Examiner dated finally rejecting Claim(s)

The fee for this Notice of Appeal is:

Note: Appeal fee was already paid.

- ☐ A check in the amount of the fee is enclosed.
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
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- ☐ Payment by credit card. Form PTO-2038 is attached.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Signature

Dated: 08/01/08

Frederick E. Cooperrider, Esq.
Registration No. 36, 769

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NOTICE OF APPEAL FROM THE PRIMARY EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES (Large Entity)	Docket No. PHCF-04015

In Re Application Of: **Mitsuru Hasegawa, et al.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Hasegawa et al.

Serial No.: 10/803,087 Group Art Unit: 1792

Filed: March 18, 2004 Examiner: R. Zervigon

For: SEMICONDUCTOR FILM FORMATION DEVICE

Commissioner of Patents
Alexandria, VA 22313-1450

APPELLANTS' SECOND BRIEF ON APPEAL

Sir:

Appellants respectfully appeal the rejection of claims 1, 3-6, 8, 9, 11-14, and 16-20 in the Office Action mailed on May 29, 2008, by which the Examiner re-opened prosecution. A second Notice of Appeal is being filed concurrently herewith.

I. REAL PARTY IN INTEREST

The real party in interest is Hitachi Cable, Ltd., assignee of 100% interest of the above-referenced patent application.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative or Assignee which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1, 3-6, 8, 9, 11-14, and 16-20, all of the claims pending, stand rejected under 35 USC §102(b) as allegedly anticipated by newly-cited US Patent 6,176,929 to Fukunaga, et al.

Appellants respectfully appeal this rejection for all claims.

IV. STATUS OF AMENDMENTS

As a result of Appellants' Appeal Brief filed on February 14, 2008, the Examiner reopened prosecution in the Office Action mailed on May 29, 2008, based on newly-cited US Patent 6,176,929 to Fukunaga et al. This Appeal Brief responds to the new rejection based on Fukunaga.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Bases in the specification for the independent claims:

1. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel (102, Fig. 1) that includes a gas flow path to allow a source gas to pass through, a substrate mount site upon which to mount a substrate (104, Fig. 1) being provided in the gas flow path inside the reaction vessel, said substrate mount site being located on an inside surface of said reaction vessel along a first side of said reaction vessel (lines 22-28 of page 5);

a heater (105, Fig. 1) that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on said first side along which the substrate mount site inside the reaction vessel is mounted (lines 2-4 of page 6);

a cooling device (103, Fig. 1; lines 4-6 of page 6) that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on a second side substantially directly opposite to the heater, said cooling device controlling an internal temperature of the reaction vessel in a first section of the gas flow path where the substrate mount site is located; and

a thermal conductivity adjusting member (101, Figs. 1, 2, 3; 107, Figs. 5, 6; 201, Fig. 8; lines 6-8 of page 6) that is disposed between the reaction vessel and the cooling device,

wherein the thermal conductivity adjusting member allows the first section along the gas flow path where the substrate mount site is located to have a thermal conductivity different from that of a second section along the gas flow path, in order to lower a thermal diffusion effect of the source gas in the first section, thereby forming a temperature gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel (see Regions 1, 2, 3 in Fig. 1; lines 15-19 of page 6).

6. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel (102, Fig. 7) that includes a gas flow path to allow a source gas to pass through and a substrate mount site on an inside surface of the reaction vessel to mount a substrate in the gas flow path (104, Fig. 1), said substrate mount site being located on a first side of said reaction vessel (lines 22-28 of page 5);

a heater (105, Fig. 7) that is disposed along only one side of the reaction vessel, outside of the reaction vessel on said first side of the reaction vessel as the substrate mount site is located, the heater thereby being close to the substrate mount site (lines 2-4 of page 6); and

a cooling device (103, Fig. 7; lines 4-6 of page 6) to control an internal temperature of the reaction vessel in a section of the gas flow path wherein the substrate mount site is located, the cooling device disposed along only one side of the reaction vessel, outside of the reaction vessel on a second side of said reaction vessel substantially directly opposite to said first side of said reaction vessel that the heater is located,

wherein a wall thickness of the reaction vessel (102, Fig. 7) is smaller in the section along the gas flow path where the substrate mount site is located , thereby forming an interspace (106, Fig. 7) between the reaction vessel and the cooling device to lower a thermal diffusion effect of the source gas in the section of the gas flow at the location of the substrate mount site, thereby forming a temperature gradient in the reaction vessel by

providing a difference in temperature between regions of the reaction vessel (see Regions 1, 2, 3 in Fig. 7; line 25 of page 11 through line 1 of page 12).

9. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel (102, Fig. 1) that includes a gas flow path to allow a source gas to pass through and a substrate mount site provided in the gas flow path to mount a substrate (104, Fig. 1), said substrate mount site being located on an inside surface of said reaction vessel along a first side thereof (lines 22-28 of page 5);

a heater (105, Fig. 1) that is disposed along only a single side of the reaction vessel, outside of the reaction vessel along said first side and close to the substrate mount site (lines 2-4 of page 6);

a cooling device (103, Fig. 1; lines 4-6 of page 6) that is disposed along only a single side of the reaction vessel, outside of the reaction vessel on a second side of said reaction vessel, said second side being substantially directly opposite to the first side of said reaction vessel along which said heater is located, the cooling device controlling an internal temperature of the reaction vessel in a vicinity of the substrate mount site;

a plate member (202, Fig. 8; lines 25-27 of page 12) that is disposed along said second side of said reaction vessel opposite to the substrate mount site in the gas flow path; and

a thermal conductivity adjusting member (201, Fig. 8; lines 6-8 of page 6) that is disposed between the cooling device and the plate member,

wherein the thermal conductivity adjusting member provides a first section along the gas flow path with a thermal conductivity different from a second section along the gas flow path, to lower a thermal diffusion effect of the source gas in the first section, thereby forming a temperature gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel (see Regions 1, 2, 3 in Fig. 1; lines 15-19 of page 6).

14. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel (102, Fig. 1) that includes a gas flow path to allow a source gas to pass through and a substrate mount site provided in the gas flow path to mount a substrate (104, Fig. 1), said substrate mount site being located on an inside surface of said reaction vessel on a first side thereof (lines 22-28 of page 5);

a heater (105, Fig. 1) that is disposed along only a single side of said reaction vessel, outside of the reaction vessel along said first side and close to the substrate mount site (lines 2-4 of page 6);

a cooling device (103, Fig. 1; lines 4-6 of page 6) that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on a second side thereof, said second side being substantially directly opposite to the first side along which the heater is disposed, to control an internal temperature of the reaction vessel in a vicinity of the substrate mount site; and

a plate member (202, Fig. 9) that is disposed along said second side, opposite to the substrate mount site in the gas flow path,

wherein the reaction vessel includes a wall thickness (102, Fig. 7) that is smaller in a first section along the gas flow path than a wall thickness in a second section, such as to thereby form an interspace between the reaction vessel and the cooling device to lower a thermal diffusion effect of the source gas in the first section, thereby forming a temperature gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel (see Regions 1, 2, 3 in Fig. 1; lines 15-19 of page 6).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Appellant presents the single following ground for review by the Board of Patent Appeals and Interferences:

GROUND 1: The Anticipation Rejection for Claims 1, 3-6, 8, 9, 11-14, and 16-20 by newly-cited US Patent 6,176,929 to Fukunaga et al

VII. ARGUMENTS

GROUND 1: The Anticipation Rejection for Claims 1, 3-6, 8, 9, 11-14, and 16-20 by newly-cited US Patent 6,176,929 to Fukunaga et al

The Examiner's Position

The Examiner alleges that newly-cited Fukunaga satisfies all claim limitations of all pending claims.

Appellants' Position

Appellants respectfully disagree and do not believe that the present evaluation based on newly-cited Fukunaga satisfies the plain meaning of the claim language any more than did the previous rejection based on Okase, the subject of Appellants' previous Appeal Brief.

Taking even independent claim 1 as an example, Appellants respectfully submit that there are elements of the claimed invention that are clearly missing in Fukunaga, as follows.

Newly-cited Fukunaga clearly does not have a thermal conductivity adjusting member, let alone such thermal conductivity adjusting member in combination with a heater and a cooling element as described in the independent claims.

To begin with, relative to the substrate mount described in the first claim limitation of independent claim 1, Appellants submit that line 2 of column 5 of Fukunaga clearly indicates that substrate W as held on substrate holder 12. However, lines 3-5 of column 5 also clearly indicate that the substrate holder 12 is raised/lowered by elevator device 14, and the description at lines 4-5 of column 5, in combination with the description at lines 10-12 of column 6 clearly indicate the wafer W is moved to the highest position, as shown in Figure 1A.

Therefore, relative to a "gas flow path", lines 5-7 of column 5 clearly describe that gases enter from above the wafer W through the gas showering head 16, using holes 30 described in lines 19-24 of column 5. The gas flow path is further described at lines 12-21

of column 6: "*The substrate W is heated to a deposition temperature using the susceptor 24, and a gaseous mixture of feed gas and reactant gas is supplied from the gas showering head 16 which is kept at a specific temperature by a circulating thermal medium. The feed gas and the reactant gas react on the substrate W to form a thin-film deposit on the substrate W, and the spent gas is directed radially over the substrate W to flow into the exhaust passage P2 formed by the inner and outer flow guiding plates 44, 46.*"

Therefore, given the above description from Fukunaga, Applicants respectfully submit that the "gas flow path" in Figure 1A would consist of the area immediately above the wafer W and extends radially outward from the wafer W to the exhaust passages P2, so that the Examiner's initial burden would be that of demonstrating the corresponding components along this gas flow path that satisfy the plain meaning of the claim language.

Relative to a heater, Fukunaga clearly has at least <u>two</u> heaters. First, there is a "jacket heater" described in lines 27-30 of column 5: "... *and a jacket heater (temperature control device) 34 for maintaining the nozzle holes 30 and the mixing space at a certain temperature.*" This first heater in the gas showering head 16 would clearly be at the top of the gas flow path or at the beginning of the gas flow path.

Second, in lines 14-15 of column 5, Fukunaga describes another heater: "*The substrate holder 12 comprises a circular disk shaped subsceptor 24 having an internal heater (not shown)....*" This second heater in the subsceptor would clearly be at the bottom of the gas flow path or the portion of the gas flow path at the wafer location and is clearly opposite to the top heater.

Relative to a cooling element, Fukunaga describes various mechanisms related to cooling or other thermal control, in various embodiments, but none of these cooling mechanisms would seem to satisfy the plain meaning of the claim limitations.

First, in lines 13-17 of column 6 and in lines 23-28 of column 7, there is reference to a "circulating thermal medium", understood as maintaining constant heat for the heater of the gas showering head 16. However, this mechanism does not appear to be reasonably related to cooling, since its purpose would appear to be maintaining a <u>constant heat</u> for the gas showering head.

Second, the references clearly directed to cooling mechanisms would appear to be described in various embodiments, as follows:

1) Embodiment 1 (Fig. 1A)

As described at lines 39-41 of column 5, side wall section 18 and bottom plate 36 have no thermal medium passages for heat protection.

2) Embodiment 2 (Fig. 2)

As described at lines 56-60 of column 6, cylindrical thermal insulator 60 provides thermal protection of the inner flow guiding plate 44 against temperature increase from radiation from the susceptor 24 (presumed to mean the heater in the susceptor, as described at line 16 of column 5).

3) Embodiment 3 (Fig. 3)

As described at line 62 of column 6 through line 2 of column 7, insulator 60 has internal fluid passage 62 for thermal medium supplied from an external source for optimizing temperature of the deposition chamber.

4) Embodiment 4 (Fig. 4)

As described at lines 4-50 of column 7 (particularly at lines 41-46), insulator member 74 suppresses radiation from the substrate holder 12 to provide heat protection for wall section 18, thereby preventing feed material from decomposition and sticking to these wall sections.

5) Embodiment 5 (Fig. 5)

As described at lines 53-59 of column 7, the insulator member 74 is a simple cylindrical member that is easily removed.

6) Embodiment 6 (Fig. 6)

As described at line 63 of column 7 through line 4 of column 8, insulator member 74 has thermal medium passage 84 for connection to an external supply source to control temperature rise of wall section 18.

7) Embodiment 7 (Fig. 7)

As described at lines 6-16 of column 8, jacket 88 cools wall section 18, jacket 89 cools elevator flange 90, in addition to insulator member 74.

Applicants respectfully submit that none of these seven cooling configurations described in Fukunaga reasonably satisfy the plain meaning of the language of even the independent claims, since none of them are on the opposite side of a heater used as the heating element. Moreover, there is no thermal conductivity adjusting member located between either heater in Fukunaga and one of these seven cooling configurations.

Since independent claim 1 refers to a heater that is along the same side as the wafer substrate mount site, then the only heater that would reasonably qualify for satisfying the claim description would be the heater in the susceptor 24. However, none of the seven cooling configurations identified above are located on the side directly opposite to the susceptor heater, as required by the plain meaning of the claim language of the independent claims. Nor does Fukunaga provide any component that would reasonably qualify as a thermal conductivity adjusting member.

Hence, turning to the clear language of the claims, in newly-cited Fukunaga there is no teaching or suggestion of: "... a heater that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on said first side along which the substrate mount site inside the reaction vessel is mounted; a cooling device that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on a second side substantially directly opposite to the heater, said cooling device controlling an internal temperature of the reaction vessel in a first section of the gas flow path where the substrate mount site is located; and a thermal conductivity adjusting member that is disposed between the reaction vessel and the cooling device, wherein the thermal conductivity adjusting member allows the first section along the gas flow path where the substrate mount site is located to have a thermal conductivity different from that of a second section along the gas flow path, in order to lower a thermal diffusion effect of the source gas in the first section, thereby forming a temperature gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel", as required by independent claim 1.

Moreover, relative to dependent claims, since there is no thermal conductivity adjusting member in newly-cited Fukunaga, there is clearly no satisfaction of dependent claims 3-5.

Relative to independent claim 6, in addition to the deficiency identified above for independent claim 1 concerning the absence of a cooling device located on the opposite side to the heater, none of the seven above-identified cooling mechanisms in Fukunaga satisfy the plain meaning of the claim language, since none attempt to cool the flow path where the wafer is mounted. Moreover, there is no difference in wall thickness in Fukunaga in the section where the wafer is mounted or an interspace, let alone the interspace defined by dependent claim 8.

Relative to independent claim 9, in addition to the deficiency identified above relative to the cooling device opposite the heater, there also is no plate member, let alone a thermal conductivity adjusting member disposed between the cooling device and the plate member.

Relative to independent claim 14, in addition to the deficiency identified above relative to the cooling device opposite the heater, there also is no plate member opposite the heater. Nor is there any suggestion of the wall of the Fukunaga reaction vessel being different thicknesses.

Accordingly, because Fukunaga fails to disclose or to suggest all elements of even the independent claims, the rejection of record fails to establish a *prima facie* rejection for anticipation.

For the reasons stated above, the claimed invention is fully patentable over the reference, and the Board is respectfully requested to reconsider and withdraw this rejection.

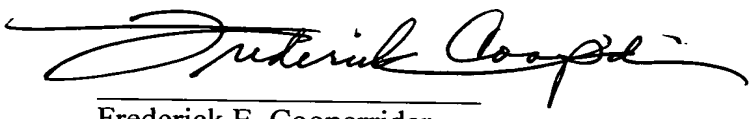
IX. CONCLUSION

In view of the foregoing, Appellants submit that claims 1, 3-6, 8, 9, 11-14, and 16-20, all the claims presently pending in the application, are clearly enabled and patentably distinct from the prior art of record and in condition for allowance. Thus, the Board is respectfully requested to reverse the rejection of claims 1, 3-6, 8, 9, 11-14, and 16-20.

Please charge any deficiencies and/or credit any overpayments necessary to enter this paper to Attorney's Deposit Account number 50-0481.

Respectfully submitted,

Dated: 08/01/08



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CLAIMS APPENDIX

The claims, as reflected upon entry of the Amendment Under 37 CFR §1.111 filed on August 8, 2007, are shown below:

1. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through, a substrate mount site upon which to mount a substrate being provided in the gas flow path inside the reaction vessel, said substrate mount site being located on an inside surface of said reaction vessel along a first side of said reaction vessel;

a heater that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on said first side along which the substrate mount site inside the reaction vessel is mounted;

a cooling device that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on a second side substantially directly opposite to the heater, said cooling device controlling an internal temperature of the reaction vessel in a first section of the gas flow path where the substrate mount site is located; and

a thermal conductivity adjusting member that is disposed between the reaction vessel and the cooling device,

wherein the thermal conductivity adjusting member allows the first section along the gas flow path where the substrate mount site is located to have a thermal conductivity different from that of a second section along the gas flow path, in order to lower a thermal diffusion effect of the source gas in the first section, thereby forming a temperature

gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel.

2. (Canceled)

3. (Rejected) The semiconductor film formation device according to claim 1, wherein:

the first section comprises an interspace formed between the reaction vessel and the thermal conductivity adjusting member.

4. (Rejected) The semiconductor film formation device according to claim 3, wherein:

the interspace has a varying height along the gas flow path.

5. (Rejected) The semiconductor film formation device according to claim 1, wherein:

the first section comprises a material having a thermal conductivity that is different from a thermal conductivity of a material of the second section.

6. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through and a substrate mount site on an inside surface of the reaction vessel to mount a substrate in the gas flow path, said substrate mount site being located on a first side of said reaction vessel;

a heater that is disposed along only one side of the reaction vessel, outside of the reaction vessel on said first side of the reaction vessel as the substrate mount site is located, the heater thereby being close to the substrate mount site; and

a cooling device to control an internal temperature of the reaction vessel in a section of the gas flow path wherein the substrate mount site is located, the cooling device disposed along only one side of the reaction vessel, outside of the reaction vessel on a second side of said reaction vessel substantially directly opposite to said first side of said reaction vessel that the heater is located,

wherein a wall thickness of the reaction vessel is smaller in the section along the gas flow path where the substrate mount site is located, thereby forming an interspace between the reaction vessel and the cooling device to lower a thermal diffusion effect of the source gas in the section of the gas flow at the location of the substrate mount site, thereby forming a temperature gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel.

7. (Canceled)

8. (Rejected) The semiconductor film formation device according to claim 6, wherein:

the interspace has a height that varies along the gas flow path.

9. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through and a substrate mount site provided in the gas flow path to mount a substrate, said substrate mount site being located on an inside surface of said reaction vessel along a first side thereof;

a heater that is disposed along only a single side of the reaction vessel, outside of the reaction vessel along said first side and close to the substrate mount site;

a cooling device that is disposed along only a single side of the reaction vessel, outside of the reaction vessel on a second side of said reaction vessel, said second side being substantially directly opposite to the first side of said reaction vessel along which said heater is located, the cooling device controlling an internal temperature of the reaction vessel in a vicinity of the substrate mount site;

a plate member that is disposed along said second side of said reaction vessel opposite to the substrate mount site in the gas flow path; and

a thermal conductivity adjusting member that is disposed between the cooling device and the plate member,

wherein the thermal conductivity adjusting member provides a first section along the gas flow path with a thermal conductivity different from a second section along the gas flow path, to lower a thermal diffusion effect of the source gas in the first section, thereby forming a temperature gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel.

10. (Canceled)

11. (Rejected) The semiconductor film formation device according to claim 9 wherein:

the first section comprises an interspace formed between the reaction vessel and the thermal conductivity adjusting member.

12. (Rejected) The semiconductor film formation device according to claim 11, wherein:

the interspace has a height that varies along the gas flow path.

13. (Rejected) The semiconductor film formation device according to claim 11, wherein:

the first section comprises a material whose thermal conductivity is different from that of a the second section.

14. (Rejected) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through and a substrate mount site provided in the gas flow path to mount a substrate, said substrate mount site being located on an inside surface of said reaction vessel on a first side thereof;

a heater that is disposed along only a single side of said reaction vessel, outside of the reaction vessel along said first side and close to the substrate mount site;

a cooling device that is disposed along only a single side of said reaction vessel, outside of the reaction vessel on a second side thereof, said second side being substantially directly opposite to the first side along which the heater is disposed, to control an internal temperature of the reaction vessel in a vicinity of the substrate mount site; and

a plate member that is disposed along said second side, opposite to the substrate mount site in the gas flow path,

wherein the reaction vessel includes a wall thickness that is smaller in a first section along the gas flow path than a wall thickness in a second section, such as to thereby form an interspace between the reaction vessel and the cooling device to lower a thermal diffusion effect of the source gas in the first section, thereby forming a temperature gradient in the reaction vessel by providing a difference in temperature between regions of the reaction vessel.

15. (Canceled)

16. (Rejected) The semiconductor film formation device according to claim 14, wherein:

the interspace has a varying height along the gas flow path.

17. (Rejected) The semiconductor film formation device according to claim 1, wherein said gas flow path is substantially parallel with an exposed upper surface of said substrate as mounted upon said substrate mount site.

18. (Rejected) The semiconductor film formation device according to claim 6, wherein said gas flow path is substantially parallel with an exposed upper surface of said substrate as mounted upon said substrate mount site.

19. (Rejected) The semiconductor film formation device according to claim 9, wherein said gas flow path is substantially parallel with an exposed upper surface of said substrate as mounted upon said substrate mount site.

20. (Rejected) The semiconductor film formation device according to claim 14, wherein said gas flow path is substantially parallel with an exposed upper surface of said substrate as mounted upon said substrate mount site.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None